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Nuclear spin-kinetics of 3He in carbonizates with various porosity

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Abstract

In the present work the NMR relaxation of the gaseous 3He inside carbonizate pores was investigated at temperature 1.5 K. The carbonizates synthesized from fructose and wood of the tropical tree astronium were used. The dependences of the 3He relaxation rates T 1 and T 2 on the gas pressure and the amount of the 3He atoms adsorbed on the surface of pore walls were measured. The analysis of obtained results reveals the existence of the 3He phases inside carbonizate-adsorbed solid layers, liquid and gas. © Springer Science+Business Media, LLC 2007.

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